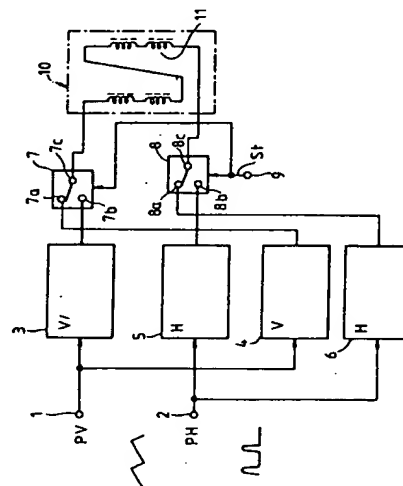


(54) TELEVISION RECEIVER

(11) 2-114770 (A) (43) 26.4.1990 (19) JP
 (21) Appl. No. 63-268893 (22) 25.10.1988
 (71) SONY CORP (72) MITSUMASA SAITO(2)
 (51) Int. Cl.⁵ H04N3/27, H04N5/46, H04N7/00

PURPOSE: To prevent deterioration in the picture quality without increasing the interval of scanning lines by expanding a spot size of an electron beam when number of horizontal scanning lines is less.

CONSTITUTION: When a television signal of the NTSC system is received, switches 7, 8 are controlled by a control signal St supplied to a terminal 9, and a current of a parabolic waveform from a vertical parabolic waveform generating circuit 3 and a current of a parabolic waveform from a horizontal parabolic waveform generating circuit 5 are fed to an electromagnetic quartet pole 10 via the switches 7, 8. As a result, the current of the parabolic waveform of one horizontal period is modulated by the current of the parabolic waveform of one vertical period and fed to the pole 10 to form a magnetic field. Thus, the beam spot shape is corrected.



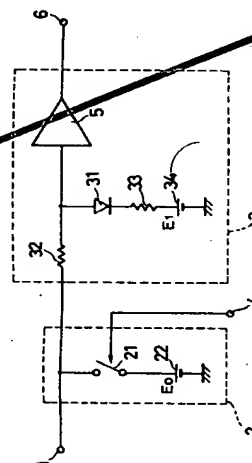
4: vertical parabolic waveform generation, 6: horizontal parabolic waveform generation

(54) CATHODE RAY TUBE CIRCUIT

(11) 2-114771 (A) (43) 26.4.1990 (19) JP
 (21) Appl. No. 63-267295 (22) 25.10.1988
 (71) SONY CORP (72) MORIHISA USAMI(2)
 (51) Int. Cl.⁵ H04N5/16, H04N5/57

PURPOSE: To match a reference level of a video signal with high accuracy and also to increase only an intermediate brightness while keeping a white peak level as it is by applying nonlinear amplification to the video signal just after clamping the signal.

CONSTITUTION: A video signal such as a luminance signal is inputted to a clamp circuit 2, in which a bottom level of the waveform is clamped to a voltage E_0 of a DC voltage source 22 and the result is inputted to a nonlinear amplifier circuit 3. A diode 31 of the nonlinear amplifier circuit 3 is turned on when the voltage thereacross reaches a voltage higher than $E_1 + V_f$ and the input signal is divided (attenuated) by resistors 32, 33 in this case and the resulting voltage is fed to an amplifier 5. With a high luminance video signal higher than the voltage $E_1 + V_f$ inputted, since the signal voltage is divided by the resistors 32, 33, then it is attenuated, that is, a kind of limit state. The signal is amplified by the amplifier 5, then only the intermediate brightness level is increased while the white peak level (P_{MAX}) is kept as it is.

**(54) VIDEO SIGNAL CIRCUIT**

(11) 2-114772 (A) (43) 26.4.1990 (19) JP
 (21) Appl. No. 63-269675 (22) 25.10.1988
 (71) NEC CORP (72) TAKESHI KUWAJIMA
 (51) Int. Cl.⁵ H04N5/18, H04N7/093

PURPOSE: To reproduce the clamping without giving damage to a back porch of a video signal by detecting a delay between a horizontal synchronizing signal of a video signal and a synchronizing pulse signal, controlling the pulse width of the synchronizing pulse signal so as to include the clamp operation period within the SYNC tip period of the video signal.

CONSTITUTION: A comparator 7 operated subsequently by the synchronizing pulse signal receives a difference signal of a subtractor 6, inputs a signal obtained through the comparison with a prescribed reference level V_{TH} to a control input terminal of a switch circuit 8 receiving the synchronizing pulse signal to control the pulse width of the synchronizing pulse signal. The synchronizing pulse signal whose pulse width is controlled by the switch circuit 8 is inputted to a clamp circuit 2 and its operating period is controlled. Thus, it is possible to include the operating period of the clamp circuit 2 within the SYNC tip period of the input video signal so that the clamping operation does not exist in the period of back porch.

